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REFERENCES

Multi-Species Conservation Strategy. 2000. CALFED Bay-Delta Program, Programmatic EIS/EIR Technical Appendix. July 2000

Strategic Plan for Ecosystem Restoration. 2000. CALFED Bay-Delta Program, Programmatic EIS/EIR Technical Appendix. July 2000

◆ PERENNIAL GRASSLAND



INTRODUCTION

Perennial grasslands provide important breeding and foraging habitat areas for many wildlife species and support several special-status plant species. Perennial grassland was historically common throughout the Central Valley. Most perennial grassland has been lost or converted into annual grassland. Major factors that limit this resource's contribution to the health of the Bay-Delta are related to the adverse effects of grasslands conversion for agricultural, urban, and industrial uses, and continuing land use practices that maintain non-native annual grasses dominance in historic perennial grassland habitat.

RESOURCE DESCRIPTION

Perennial grassland provides habitat for many plant and wildlife populations and are important for maintenance of vernal pools and their associated plant and animal species.

In addition to supporting vernal pools, perennial grasslands provide valuable habitat for many wildlife species. Common grassland species include deer, San Joaquin kit fox, ground squirrels, kangaroo rats, and blunt-nosed leopard lizards, and nesting waterfowl. Where grassland still occurs, it also provides an extremely valuable transition zone and support area for adjacent habitats.

Perennial grasslands and associated vernal pools historically were present at drier, higher elevations in the Delta. Grasslands developed adjacent to wetland and riparian habitats that occupied wetter, lower elevation. Much of the perennial grasslands have been converted for other uses. Most remaining grasslands are now dominated by non-native annual grasses. Annual grasses

out competed and replaced perennial bunch grasses over most of the Central Valley.

Perennial grasslands are described in the MSCS as grasslands. MSCS grassland is defined to include upland vegetation communities dominated by introduced and native annual and perennial grasses and forbs, including non-irrigated and irrigated pasturelands. Grassland habitat includes all of the ERP perennial grassland habitat and much more extensive annual grassland vegetation that is not addressed in the ERP (Multi-Species Conservation Strategy 2000).

Extent and health of perennial grasslands in the Bay-Delta estuary are declining. Large areas of historic perennial grassland has been converted for agriculture, urban, and industrial uses. Remaining grasslands have been invaded by non-native annual grass. Many of the annual grass species out-compete native grasses. Fire-resistant, non-native species have been given an additional competitive edge from current fire suppression techniques. For example, native bunch grasses are fire resistant and adapted to relatively frequent fires because their perennating buds are near the ground and protected by the rest of the plant. Present fire suppression activities may favor non-native annuals which, because of infrequent catastrophic fires, destroy the bunch grasses when very hot fires burn the thatch which has built up over time. Fires promote plant succession and have aided in the intrusion of non-native fire-tolerant plants; and continuation of land use practices that maintain the dominance of non-native annual grasses.



VISION

The vision is to protect and improve existing perennial grasslands and increase perennial grassland area to provide high-quality habitat for special-status plant and wildlife populations and other wildlife dependent on the Bay-Delta.

This vision is a component of restoring wetland and riparian habitats.

Restoration of perennial grassland would focus on reestablishing historic grasslands and protecting and improving important existing grassland areas in the Sacramento-San Joaquin Delta, Suisun Marsh/North San Francisco Bay, and Yolo Basin Ecological Management Zones. Grasslands would be restored as a component of wetland and riparian habitat restoration. Combining these restoration efforts increases overall habitat value for species that require multiple habitats. The proximity of habitats to each other (e.g., grasslands adjacent to wetlands provides nesting habitat for several species of ducks and refuge habitat for small mammals during flooding) and provides a protecting buffer from potential adverse effects of adjacent land uses.

Reducing land use changes and the introduction of non-native species will decrease the major stressors affecting perennial grasslands and vernal pools. The promotion of fire as a natural method for succession would aid in managing fire-sensitive non-native plants. Alternatives to the use of herbicides and other contaminants to control vegetation should be encouraged to promote more natural revegetation.

Increasing the quantity and quality of grassland habitat conditions would help increase special-status plant and wildlife populations. Habitat improvements would also maintain or increase populations of other species that are dependent on grasslands in the estuary.

LINK TO MSCS EVALUATED SPECIES

The MSCS has identified the following species as potentially benefitting from the restoration of perennial grassland habitat in the Bay-Delta system.

MSCS SPECIES INCLUDED IN THE ERP

- California red-legged frog
- greater sandhill crane
- Swainson's hawk
- California tiger salamander
- recurved larkspur, and
- heartscale.

OTHER SPECIES EVALUATED IN THE MSCS

- San Joaquin kit fox
- giant kangaroo rat
- Merced kangaroo rat
- California condor

- Alameda whipsnake
- blunt-nosed leopard lizard
- white-tailed kite
- golden eagle
- mountain plover
- greater western mastiff-bat
- tricolored blackbird
- short-eared owl
- long-billed curlew
- northern harrier, and
- San Joaquin whipsnake.

INTEGRATION WITH OTHER RESTORATION PROGRAMS

Perennial grasslands as used here is similar to the upland designation in Madrone Associates (1980) and the Goals Project (1999) description of grasslands.

Protecting and restoring perennial grasslands are objectives of agencies and organizations that operate many protected habitat areas. These include:

- Cosumnes River Preserve,
- Grizzly Slough Wildlife Area,
- Jepson Prairie Preserve,
- Putah Creek South Fork Preserve,
- Stone Lakes National Wildlife Refuge,
- and Woodbridge Ecological Reserve.

Restoring perennial grassland is also an objective of the Cache Creek Corridor Restoration Plan and Yolo County Habitat Conservation Plan.

LINKAGE WITH OTHER ECOSYSTEM ELEMENTS

Perennial grasslands are an important component of the Bay-Delta ecosystem and provide habitat for many plant and wildlife populations. Common species dependent on perennial grasslands include deer, San Joaquin kit fox, blunt-nosed leopard lizards, kangaroo rats and nesting waterfowl. Grassland also provide an important transition habitat between adjacent habitat areas. In addition, health grasslands provide contributions

to flood control function by slowing and extending storm events and by reducing erosion.

This type of habitat is adversely affected by land use, land conversion, and proliferation of non-native plant and grass species. Control of exotic plant species is a significant stressor and control programs need to be developed for protecting and restoring perennial grasslands.

OBJECTIVE, TARGETS ACTIONS, AND MEASURES



The Strategic Objective is to restore large expanses of all major habitat types, and sufficient connectivity among habitats, in the Delta, Suisun Bay, Suisun Marsh, and San Francisco Bay to support recovery and restoration of native species and biotic communities and rehabilitation of ecological processes.

LONG-TERM OBJECTIVE: Restore perennial grasslands in the Delta, Suisun Bay, Suisun Marsh, San Francisco Bay, and other areas of the Central Valley to a substantial fraction of their pre-settlement areas, or to a point where all at-risk species that depend on the habitats are no longer at risk.

SHORT-TERM OBJECTIVE: Develop and begin implementation of action plans for restoring large and significant examples of perennial grasslands in the Delta, Suisun Bay, Suisun Marsh, San Francisco Bay, and other areas of the Central Valley.

RATIONALE: All major natural habitat types in the Delta, Suisun Bay, Suisun Marsh, and San Francisco Bay have been reduced to a small fraction of the area they once occupied, resulting in a large number of at-risk plant and animal species and an increased susceptibility of the remaining areas to irreversible degradation (e.g., invasion by non-native species). The reduction trend is continuing and will have to be reversed if self-sustaining examples of these habitats, and the diverse organisms they support, are to persist into the future. This reversal will require a large number of diverse and localized actions, from levee setbacks to land acquisition to better management of existing sites. The major habitat types to be restored include tidal shallow water habitat, freshwater emergent wetland, channel islands and associated habitats, tidal sloughs, nontidal freshwater

emergent wetlands, seasonal upland wetlands, vernal pools and surrounding uplands, riparian forests and associated upland areas, perennial grassland, and inland dune scrub. In order to make restoration actions systematic and cost-effective, specific objectives need to be established for each of the habitat types, as well as subsets of them that have distinctive biological characteristics, and then priorities set within each objective for protection and restoration activities.

STAGE 1 EXPECTATIONS: A classification system for Delta, Suisun Bay, Suisun Marsh, and San Francisco Bay habitats that can be used as a basis for conservation actions will have been developed. Specific, numeric objectives should be formulated for each habitat type, with restoration objectives based on clearly stated conceptual models. Within and among habitat types, conservation and restoration activities should be prioritized. Work should begin on those projects given highest priority within a year of adoption of the strategic plan.

RESTORATION ACTIONS

The general target for perennial grassland is to protect and restore 4,000-6,000 acres in the Sacramento-San Joaquin Delta Ecological Management Zone and 1,000 acres in the Suisun Marsh/North San Francisco Bay Ecological Management Zone.

Restoring, protecting, and improving grasslands could be achieved through:

- purchasing land or conservation easements or from willing landowners to protect important existing habitat areas from potential future degradation,
- establishing incentive programs to encourage landowners to establish and maintain perennial grasslands,
- implementing an intensive management program to control non-native vegetation and enhance native grasses and other plant species, and
- developing and implementing alternatives to land management practices on public lands that continue to degrade habitat quality or inhibit habitat recovery.

Restoring other ecological processes and habitats proposed by the Ecosystem Restoration Program Plan (ERPP) would also create opportunities for the managed reestablishment of grasslands elsewhere in the Central Valley.

MSCS CONSERVATION MEASURES

The following conservation measures were included in the Multi-Species Conservation Strategy (2000) to provide additional detail to ERP actions to enhance or restore perennial grassland habitats that would help achieve species habitat or population targets.

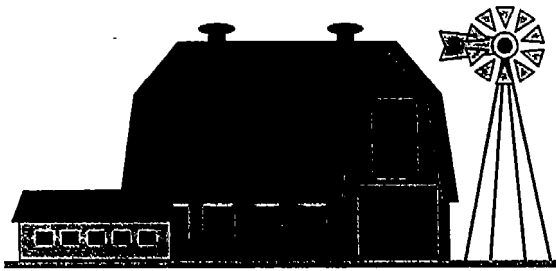
- Restore wetland and perennial grassland habitats adjacent to habitats occupied by Suisun ornate shrew to create a buffer of natural habitat to protect populations from potential adverse affects that could be associated with future changes in land use on nearby lands and to provide habitat suitable for the natural expansion of populations.
- Restore wetland and perennial grassland habitats adjacent to nesting habitats occupied by Suisun song sparrow to create a buffer of natural habitat to protect nesting pairs from potential adverse affects that could be associated with future changes in land use on nearby lands and to provide habitat suitable for the natural expansion of populations.
- Restore wetland and perennial grassland habitats adjacent to habitats occupied by salt marsh harvest mouse to create a buffer of natural habitat to protect populations from potential adverse affects that could be associated with future changes in land use on nearby lands and to provide habitat suitable for the natural expansion of populations.
- Restore wetland and perennial grassland habitats adjacent to habitats occupied by San Pablo California vole to create a buffer of natural habitat to protect populations from potential adverse affects that could be associated with future changes in land use on nearby lands and to provide habitat suitable for the natural expansion of populations.
- Restore wetland and perennial grassland habitats adjacent to habitats occupied by saltmarsh common yellowthroat to create a buffer of natural habitat to protect populations from potential adverse affects that could be associated with future changes in land

use on nearby lands and to provide habitat suitable for the natural expansion of populations.

REFERENCES

- Goals Project. 1999. Baylands Ecosystem Habitat Goals. A report of habitat recommendations prepared by the San Francisco Estuary Baylands Ecosystem Goals Project. U.S. Environmental Protection Agency, San Francisco and San Francisco Bay Regional Water Quality Control Board, Oakland, California.
- Madrone Associates. 1980. Delta wildlife habitat protection and restoration plan. Prepared for the California Department of Fish and Game and the U.S. Fish and Wildlife Service.
- Multi-Species Conservation Strategy. 2000. CALFED Bay-Delta Program, Programmatic EIS/EIR Technical Appendix. July 2000.
- Strategic Plan for Ecosystem Restoration. 2000. CALFED Bay-Delta Program, Programmatic EIS/EIR Technical Appendix. July 23000.

◆ AGRICULTURAL LANDS



INTRODUCTION

Following extensive native habitats loss in the Central Valley to agricultural and urban lands, some wildlife species have adapted to the artificial wetland and upland environments created by some agricultural practices. Once adapted, species became dependent on these agricultural areas to sustain their populations.

A major factor that limits this resource's contribution to the health of the Bay-Delta is related to adverse effects of some agricultural practices. Clean farming practices reduce the availability and quantity of forage and fence-line vegetation. Converting production from crops that provide relatively high-values for wildlife to relatively low-value crop types, displaces or insufficiently supports species that have adapted to the habitat. Converting agricultural lands for urban or industrial uses, also reduces or eliminates available habitat.

RESOURCE DESCRIPTION

Agricultural lands are located throughout the Central Valley. These lands comprise many different types of agricultural land uses ranging from non-irrigated grazing land to drip-irrigated vineyard. The type of crops grown on any particular parcel are usually dictated by soil type, topography, and availability of water. Intensively managed agricultural lands or croplands are located on flat or slightly rolling terrain. Flat cropland is usually the product of extensive surveying and laser land-leveling activities. Flat croplands provide more efficient use of water, less soil erosion, and higher crop yields. A variety of fragmented habitats that support various resident and migratory wildlife species are closely associated with these agricultural lands and includes naturally

occurring wetland types (creeks, vernal pools, and gullies).

Agricultural lands being managed for certain crops and following certain agricultural practices create wetland-like benefits for certain wildlife. These lands can provide significant habitat for some wildlife species. Crop type and cultivation practices determine the quality of habitats. For example, rice lands support millions of wintering waterfowl using the Central Valley. Lands where wheat and corn have been harvested, particularly if they have been shallowly flooded after harvest, also support large populations of wintering waterfowl and the State-listed greater sandhill crane.

Agricultural Lands are included in two MSCS habitat categories: upland cropland and seasonally flood agricultural lands. *Upland cropland* habitat includes agricultural lands farmed for grain and for field, truck, and other crops that are not seasonally flooded. *Seasonally flooded agricultural land* habitat included agricultural lands farmed for grain and rice and for field, truck, and other crops that require seasonal flooding for durations of at least 1 week as a management practice (e.g., pest control and irrigation) or are purposefully flooded seasonally to enhance habitat values for specific wildlife species (e.g., ducks for duck clubs). Upland cropland and seasonally flooded agricultural land are included in the ERP as agricultural lands (Multi-Species Conservation Strategy 2000).

Major stressors that determine the wildlife values provided by agricultural lands include activities such as water quantity and quality management, crop type conversion from relatively high-wildlife-value crops to relatively low-wildlife-value crops (e.g., conversion from pastureland rowcrops to vineyards), the use of "clean farming techniques," deep postharvest discing, practices that reduce crop and grain residue within the field, cropland management with varied pesticide application, and the timing of these activities. Implementing appropriate land use management techniques accompanied by reimbursement programs

to the agricultural stakeholder can reduce the adverse impacts of stressors on diverse agricultural habitat.



VISION

The vision for agricultural lands is to improve associated wildlife habitat values to support special-status wildlife populations and other wildlife dependent on the Bay-Delta.

Protecting and enhancing agricultural lands for wildlife would focus on encouraging production of crop types that provide high wildlife habitat value, agricultural land and water management practices that increase wildlife habitat value, and discouraging development of ecologically important agricultural lands for urban or industrial uses in the Sacramento-San Joaquin Delta and Suisun Marsh/North San Francisco Bay Ecological Management Zones.

Protecting and enhancing agricultural lands for wildlife would focus on encouraging production of crop types that provide high wildlife habitat value, agricultural land and water management practices that increase wildlife habitat value, and discouraging development of ecologically important agricultural lands for urban or industrial uses in the Sacramento-San Joaquin Delta and Suisun Marsh/North San Francisco Bay Ecological Management Zones.

Vegetation management of agricultural lands could provide wildlife habitat at many locations, including rice checks, irrigation ditches, lowlands, ponds, fallow lands, fence rows, and other areas unsuitable for agricultural land use. Agricultural crop types that present excellent opportunities for enhancement include rice, alfalfa and pasture, corn and grain, and certain rowcrops. Enhancing agricultural lands adjacent to existing wildlife habitat areas, such as refuges, would be particularly beneficial. The value of enhanced land could be increased if nearby nonfarmed or fallow lands were managed to provide other habitats required by wildlife that use agricultural lands.

In some situations, altering common management practices can greatly increase wildlife habitat value with little or no change in crop production.

LINK TO MSCS EVALUATED SPECIES

The MSCS has identified the following species as potentially benefitting from the implementation of wildlife friendly agricultural practices in the Bay-Delta system.

MSCS SPECIES INCLUDED IN THE ERP

- greater sandhill crane
- giant garter snake, and
- Swainson's hawk.

OTHER SPECIES EVALUATED IN THE MSCS

- San Joaquin kit fox
- Aleutian Canada goose
- white-tailed kite
- mountain plover
- tricolored blackbird
- California gull
- long-billed curlew
- northern harrier
- white-faced ibis
- bald eagle
- short-eared owl.

INTEGRATION WITH OTHER RESTORATION PROGRAMS

Numerous agricultural habitat improvement projects involving a number of project proponents are proposed and in various stages of development throughout the ecological management zones. Some of the more notable projects are:

- Stones Lakes National Wildlife Refuge, Cosumnes River Preserve, and
- Yolo Bypass Wildlife Management Area.

There are also many voluntary landowner incentive programs that involve various agricultural habitat improvements in the ecological management zones. These include:

- Wetland Reserve Program,
- Agricultural Conservation Program,
- Water Bank Program,
- Partners for Wildlife,
- California Waterfowl Habitat Program,

- Inland Wetland Conservation Program,
- Conservation Reserve Program,
- Agricultural-Wildlife Incentive Program (CVPIA), and
- Permanent Wetland Easement Program.

Governmental and private agencies and agricultural stakeholders involved in current agricultural land enhancement and management include:

- California Department of Fish and Game,
- Delta Protection Commission
- California Department of Water Resources,
- California Department of Transportation,
- U.S. Fish and Wildlife Service,
- U.S. Bureau of Land Management,
- U.S. Bureau of Reclamation,
- U.S. Natural Resources Conservation Service,
- Ducks Unlimited
- Valley Care (Ducks Unlimited),
- Central Valley Habitat Joint Venture,
- The Nature Conservancy,
- resource conservation districts,
- farm bureaus,
- county agricultural commissions,
- and various county land planning agencies.

LINKAGE WITH OTHER ECOSYSTEM ELEMENTS

Agricultural lands are an important habitat for many migratory wildlife species, particularly for wintering waterfowl and the State-listed greater sandhill crane.

Wildlife values of agricultural lands are adversely affected by water quantity and quality, type of agricultural crop produced, farming techniques, and application of pesticides.

STRATEGIC OBJECTIVE, TARGETS, AND PROGRAMMATIC ACTIONS



The Strategic Objective is to minimize the conversion of agricultural land to urban and suburban uses and maintain open space buffers in areas adjacent to existing and future restored aquatic, riparian, and wetland habitats, and manage agricultural lands in ways that are favorable to birds and other wildlife.

LONG-TERM OBJECTIVE: Prevent agricultural land near or adjacent to restored habitats from being converted to urban and suburban uses likely to have a negative effect on natural areas, while encouraging agricultural practices that favor birds and other wildlife and that minimize run-off of contaminants into nearby waterways.

SHORT-TERM OBJECTIVES: Identify agricultural lands in the region that are likely to have strong interactions with nearby wetlands, riparian areas, or aquatic habitats or that are important as habitat for waterfowl and other birds. Acquire conservation easements on high priority lands and provide incentives to farmers to use farming methods and crops that are favorable to wildlife.

RATIONALE: The Bay-Delta watershed is one of the most productive agricultural areas in the world, so agricultural lands and practices will always have a big influence on natural habitats in the area. The agricultural land is important as winter feeding grounds for sandhill cranes, various species of geese, and many ducks. It is also frequently important for foraging raptors, such as Swainson's hawk, and other birds. These benefits are lost if the land becomes urbanized and intense land use disturbs or alters adjacent wetlands or aquatic systems. The negative aspects of modern agriculture from an ecological perspective include its heavy use of pesticides, its efficiency of crop harvest (leaving little for wildlife), its capacity to change land use quickly (e.g., from row crops to vineyards) and its ability to use every scrap of available land. Thus, ideally, there should be a buffer zone of agricultural land that is farmed in environmentally friendly ways between the natural

habitats and more industrial agriculture lands or urban areas.

Managing significant areas of agricultural lands in the Delta in a wildlife friendly manner will help offset some of the effects of other restoration actions which will convert other agricultural lands in the Delta to tidal wetlands thus reducing their value to species such as the greater sandhill crane or the Swainson's hawk.

STAGE 1 EXPECTATIONS: High priority agricultural lands should be identified and the process begun to acquire easements from willing sellers; incentive programs should be developed and implemented to encourage the planting of crops favored by wildlife and to farm in ways that minimize environmental damage to adjacent areas.

RESTORATION ACTIONS

The general target for agricultural land is to cooperatively manage 40,000-75,000 acres for agriculture and wildlife in the Sacramento-San Joaquin Delta Ecological Management Zone.

Actions that would help increase wildlife quality include:

- deferring fall tillage until later in the year can increase the quantity of forage on cornfields for waterfowl and greater sandhill cranes,
- shallow flooding of seasonal croplands in fall/winter can greatly increase the availability of forage for wintering waterfowl
- retaining a percentage of the unharvested crop in the agricultural field would enhance the value of flooding.

Incidental benefits to agricultural stakeholders from improving conditions for wildlife would be:

- groundwater recharge to aquifers used for summer irrigation,
- leaching salts from soils,
- biological decomposition of crop residue,
- reduction in soil erosion, and
- create an opportunity for cash income from hunting and increase esthetic values, both of which may increase property values.

Protecting and enhancing agricultural lands would be achieved through participation and cooperation with

agricultural stakeholders, including farmers, ranchers, and other landowners and lessees. Mechanisms to protect and enhance agricultural lands include various multi year agreements, conservation easements, and purchases through specific payment programs between resource agencies and willing participants.

MSCS CONSERVATION MEASURES

The following conservation measures were included in the Multi-Species Conservation Strategy (2000) to provide additional detail to ERP actions to enhance the ecological value of agricultural land help achieve species habitat or population targets.

- Implementation of proposed ERP actions to enhance agricultural habitats should give priority to improving the abundance and availability of upland forage (e.g., corn and winter wheat) in the greater sandhill crane core use area centered around Bract Tract.
- To the extent consistent with CALFED objectives, at least 10% of agricultural lands to be enhanced under the ERP in the Delta and Butte Sink should be to increase forage abundance and availability for greater sandhill cranes. Priority should be given to implementing these habitat improvements within 10 miles of core habitat area centered around Bract Tract.
- Include improvement to and maintenance of suitable agricultural infrastructure habitat (i.e., ditches, drains, canals, and levees) as part of ERP actions to improve wildlife habitat values associated with agricultural lands.
- To the extent consistent with ERP objectives, direct proposed actions for improving agricultural habitats for wildlife to protecting and improving traditional wintering habitat use areas for Aleutian Canada goose.

REFERENCES

Multi-Species Conservation Strategy. 2000. CALFED Bay-Delta Program, Programmatic EIS/EIR Technical Appendix. July 2000.

Strategic Plan for Ecosystem Restoration. 2000. CALFED Bay-Delta Program, Programmatic EIS/EIR Technical Appendix. July 2000.

◆ SPECIES AND SPECIES GROUP VISIONS

INTRODUCTION

This section presents visions for species and species group ecosystem elements. Species and species groups included occur in or are dependent on the Bay-Delta. Many of these species are listed or candidate species for listing as threatened or endangered under the California Endangered Species Act (CESA), listed or proposed for listing under the federal Endangered Species Act (ESA), or designated as a species of special concern by the California Department of Fish and Game (DFG), or the U.S. Fish and Wildlife Service (USFWS). Visions were also created for important recreational or commercial species. Table 16 identifies important fish and wildlife species and species groups and associated strategic objectives. Table 17 presents the basis for selecting each species or species group as an ecosystem element. Species are grouped by the following Strategic Plan Goals:

GOAL 1: *Achieve recovery of at-risk native species dependent on the Delta and Suisun Bay as a first step toward establishing large, self-sustaining populations of these species; support similar recovery of at-risk native species in San Francisco Bay and the watershed above the estuary; and minimize the need for future endangered species listings by reversing downward population trends of native species that are not listed.*

GOAL 3: *Maintain and/or enhance populations of selected species for sustainable commercial and recreational harvest, consistent with the other ERP strategic goals.*

Visions describe what the Ecosystem Restoration Program hopes to achieve for each species and species group, how the vision is to be achieved through restoring ecological processes and habitats and reducing the effects of stressors. Proposed population targets and programmatic actions to help achieve targets are also included in visions. "Ecosystem Restoration Program Plan, Volume II: Ecological Management Zone Visions" contains more specific objectives, targets, and programmatic actions for each species by specific geographic zone. Table 18

identifies which ecological management zone(s) in which the species are treated in more detail.

SPECIES DESIGNATIONS

The Multi-Species Conservation Strategy (MSCS) addresses all federally and State listed, proposed, and candidate species that may be affected by the CALFED Program; other species identified by CALFED that may be affected by the Program and for which adequate information is available also are addressed in the MSCS. The term "evaluated species" is used to refer to all of the species addressed by the Conservation Strategy. Please refer to the MSCS appendix (Multi-Species Conservation Strategy 2000) for more information and for a complete list of evaluated species.

RECOVERY "R": For species designated "R," CALFED has established a goal to recover the species within the CALFED ERP Ecological Management Zones. A goal of "recovery" was assigned to those species whose recovery is dependent on restoration of the Delta and Suisun Bay/Marsh ecosystems and for which CALFED could reasonably be expected to undertake all or most of the actions necessary to

